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(54) Title: DETECTION, IDENTIFICATION AND DIFFERENTIATION OF EUBACTERIAL TAXA USING A HYBRIDIZATION ASSAY

(57) Abstract: The present invention relates to a method for the specific detection and/or identification of *Staphylococcus* species, in particular *Staphylococcus aureus*, using new nucleic acid sequences derived from the ITS (Internal Transcribed Spacer) region. The present invention relates also to said new nucleic acid sequences derived from the ITS region, between the 16S and 23S ribosomal ribonucleic acid (rRNA) or rRNA genes, to be used for the specific detection and/or identification of *Staphylococcus* species, in particular of *S. aureus*, in a biological sample. It relates also to nucleic acid primers to be used for the amplification of said spacer region of *Staphylococcus* species in a sample.

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 312 903 B1 (VAN HEUVERSWYN HUGO ET AL) 6 November 2001 (2001-11-06)	3,4
A	* especially, Table 1a, col 55: see SEQ ID No 53 (STAU-ICG 1; 30 nt in length) exhibits a 100% identity in overlap with SEQ ID NO 25 (29 nt) of the present application; claims 5,6; example 9	1,2,5-15
Y	EP 0 786 519 A (HUMAN GENOME SCIENCES INC) 30 July 1997 (1997-07-30)	3,4
A	SEQ #4977 (91% and 100% overlap in 58 nt); #5031 (94% and 100% overlap in 54 nt) with respectively SEQ ID NOS 1 and 2 of the application.	1,2,5-15
	-/-	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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"&" document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 03/13907

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 849 488 A (ALATOSSAVA JOUKO TAPANI ET AL) 15 December 1998 (1998-12-15)	3,4
A	86% and 94% overlap in 142 nt of 285 nt of SEQ ID NO 11 with respectively SEQ ID NOs 1 and 2 of the present application; SEQ ID NO 35 (19 nt) exhibits an 100% identity in overlap with SEQ ID NO 52 (20nt) of the present application.	1,2,5-15

INTERNATIONAL SEARCH REPORT

Information on patent family members

 International Application No
 PCT/EP 03/13907

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